

Listing of Claims:

Claims 1-60 (canceled)

Claim 61 (previously presented): A method of producing an eukaryotic poikilothermic synthetic antigen presenting cell comprising:

- a) transforming a cell with an expressible MHC class II α -chain gene operably linked to a first promoter in a vector capable of expressing a MHC class II α -chain;
- b) transforming a cell with an expressible MHC class II β -chain gene operably linked to a second promoter in a vector capable of expressing a MHC class II β -chain; and
- c) transforming a cell with a first expressible accessory molecule gene operably linked to a third promoter in a vector capable of expressing an accessory molecule.

Claim 62 (original): The method of claim 61 wherein the cell lacks a gene coding for at least one of the α -chain, the β -chain and the accessory molecule genes.

Claim 63 (original): The method of claim 61 further comprising the step of transforming the cell with an expressible antigen processing assisting gene operably linked to a fourth promoter in a vector capable of expressing an antigen processing assisting molecule.

Claim 64 (original): The method of claim 61 wherein the α - and β - chain genes are of human origin.

Claim 65 (original): The method of claim 61 wherein at least one promoter is inducible.

Claim 66 (original): The method of claim 61 wherein the α -, β - and accessory molecule genes are present in the same vector.

Claim 67 (original): The method of claim 61 wherein the α -, β - and accessory molecule genes are present in separate vectors.

Claim 68 (original): The method of claim 61 wherein the cell is an insect cell.

Claim 69 (original): The method of claim 68 wherein the insect cell is selected from the group consisting of Spodoptera and Drosophila.

Claim 70 (original): The method of claim 61 further comprising the step of transforming the cell with an expressible neomycin resistance gene operably linked to a vector.

Claim 71 (original): The method of claim 61 wherein the accessory molecule gene encodes a costimulatory molecule.

Claim 72 (original): The method of claim 71 wherein the costimulatory molecule is B7.1 or B7.2.

Claim 73 (original): The method of claim 61 wherein the accessory molecule gene encodes an adhesion molecule.

Claim 74 (original): The method of claim 73 wherein the adhesion molecule is ICAM-1, ICAM-2, ICAM-3 or LFA-3.

Claim 75 (original): The method of claim 61 wherein the accessory molecule gene encodes a survival molecule.

Claim 76 (original): The method of claim 75 wherein the survival

molecule is Fas ligand or CD70.

Claim 77 (original): The method of claim 61 further comprising the step of transforming the cell with a gene for a second accessory molecule.

Claim 78 (original): The method of claim 77 wherein the first accessory molecule is a costimulatory molecule and the second accessory molecule is an adhesion molecule.

Claim 79 (original): The method of claim 77 wherein the first accessory molecule is a costimulatory molecule and the second accessory molecule is an survival molecule.

Claim 80 (original): The method of claim 77 wherein the first accessory molecule is a survival molecule and the second accessory molecule is an adhesion molecule.

Claim 81 (original): The method of claim 77 further comprising the step of transforming the cell with a gene for a third accessory molecule.

Claim 82 (original): The method of claim 81 wherein the first accessory molecule is a costimulatory molecule, the second accessory molecule is an adhesion molecule, and the third accessory molecule is a survival molecule.

Claims 83-148 (canceled)

Claim 149 (new): The method of claim 68, wherein the accessory molecule gene encodes one or more of a costimulatory molecule, an adhesion molecule, or a survival molecule.

Claim 150 (new): The method of claim 68, wherein the accessory molecule gene encodes a costimulatory molecule.

Claim 151 (new): The method of claim 68, wherein the accessory molecule gene encodes an adhesion molecule.

Claim 152 (new): The method of claim 68, wherein the accessory molecule gene encodes a survival molecule.

Claim 153 (new): The method of claim 68, wherein the accessory molecule gene encodes one or more of a B7.1, a B7.2, an ICAM-1, an ICAM-2, an ICAM-3, an LFA-3, a Fas ligand, or a CD70.

Claim 154 (new): The method of claim 68, wherein the accessory molecule gene encodes a B7.1 or a B7.2.

Claim 155 (new): The method of claim 68, wherein the accessory molecule gene encodes an ICAM-1, an ICAM-2, an ICAM-3, or an LFA-3.

Claim 156 (new): The method of claim 68, wherein the accessory molecule gene encodes a Fas ligand or a CD70.

Claim 157 (new): The method of claim 69, wherein the accessory molecule gene encodes one or more of a costimulatory molecule, an adhesion molecule, or a survival molecule.

Claim 158 (new): The method of claim 69, wherein the accessory molecule gene encodes a costimulatory molecule.

Claim 159 (new): The method of claim 69, wherein the accessory molecule gene encodes an adhesion molecule.

Claim 160 (new): The method of claim 69, wherein the accessory molecule gene encodes a survival molecule.

Claim 161 (new): The method of claim 69, wherein the accessory molecule gene encodes one or more of a B7.1, a B7.2, an ICAM-1, an ICAM-2, an ICAM-3, an LFA-3, a Fas ligand, or a CD70.

Claim 162 (new): The method of claim 69, wherein the accessory molecule gene encodes a B7.1 or a B7.2.

Claim 163 (new): The method of claim 69, wherein the accessory molecule gene encodes an ICAM-1, an ICAM-2, an ICAM-3, or an LFA-3.

Claim 164 (new): The method of claim 69, wherein the accessory molecule gene encodes a Fas ligand or a CD70.